

Chapter 1

The Digital Medium and Its Message

At the time of his death in 1980, Marshall McLuhan was principally famous for two things: for having said, “The medium is the message” and for having deeply confused an entire generation by doing so. When I was growing up in Ontario in the 1980s, I remember watching a government-sponsored commemorative TV advertisement about McLuhan, part of a series of sixty-second celebrations of eminent Canadians. In the ad, an actor portrays a tweedy, mustachioed McLuhan leading a seminar at the University of Toronto. Suddenly he has his Eureka moment: “No, no . . . The medium is not more *important* than the message it carries. . . . It – it’s obvious. The medium *is* the message.”¹ Students leave the class, excited by the power of the gnomic phrase, yet also utterly perplexed by it. Back in the classroom, the fictionalized McLuhan paces about, ranting madly in solitude. Unable to fit his rambling theories into the minute allotted, the advertisement cuts him off mid-sentence. McLuhan had undoubtedly come up with something important, the advertisement implied – but exactly what it was remained entirely unclear.

Today, McLuhan has come into focus. In part this is because the things he said about electronic media like radio and television turned out to be more applicable to digital media such as networked computers and smartphones. As *Wired* magazine recognized when it posthumously named McLuhan its “Patron Saint” in 1993, his theories only really began to make sense with the arrival of the internet. Since then, as the digital medium has extended further and further into our daily lives, we have come increasingly to feel the truth of McLuhan’s statement, “The medium is the message.” So much of what we consume online is just the old media fed to us in new ways: Netflix is mostly made up of old TV shows and movies; YouTube is replete with MTV-style music videos and commercials; the most popular podcasts are radio shows. As McLuhan said, “The content of the medium is never the message because the content is always the old medium.”² The real change comes from the new medium itself, which “creates a new situation for human association and human perception.”³ Even when the content of digital media is identical to its analog predecessors, we can feel how the digital medium itself changes our

lives: all-night Netflix binges abetted by the ability to watch whatever we want, whenever we want; the comments section on an old music video from the early 1990s that connects us with diehard fans of a song we thought everyone had forgotten; the favorite weekly podcast on a topic so obscure it would not stand a chance on commercial radio. “*That*,” McLuhan contends, “is the effect the medium has – that total, pervasive effect – *that* is the message, the social change that is brought about.”⁴

No group is more sensitive to the changes inherent in the shift to digital forms than readers of literature. What the digital age has accomplished, above all else, is to defamiliarize the act of reading. It has done so by offering us choices. We begin reading an article in a print magazine on the bus; when we get to work, we finish reading it on the magazine’s website. In the living room, we read novels on our tablets; in bed, we thumb the pages of a paperback. Reading a photocopied scholarly article, we discover another article we would like to consult; opening our laptops, we head for the library website and download the PDF. As we shift back and forth between print and digital forms, reading becomes an increasingly self-conscious act. We study not only the words on the page or the screen but also the way that the medium itself seems to shape our reading. Is it harder to concentrate on a long novel on an iPad, where e-mail notifications and Twitter messages easily break the spell of narrative? Does an embedded video in an “enhanced e-book” enrich the reading experience or merely distract from it? If the ability to discuss a novel with an online reading community transforms a solitary experience into a social one, is this for the better or worse?

This chapter takes up the big questions that accompany the shift from printed to digital forms: how reading is changing in the digital age and how our shifting reading practices are reshaping our society and ourselves. It explores these issues through the debate initiated by Nicholas Carr’s 2008 article, “Is Google Making Us Stupid?” – perhaps the most influential public account of the message of the digital medium. For Carr and his respondents Clay Shirky and Sven Birkerts, the debate turns on three key points: (1) the question of attention, of whether the printed book fostered the ability to concentrate in depth and at length and whether discontinuous reading habits promoted by digital forms are destroying this ability; (2) the question of whether print fostered individual consciousness and whether electronic media privilege group consciousness; and (3) the question of democracy, of whether the digital age – with its promises of unrestricted access to texts and new horizontal forms of association and collaboration – is inherently more democratic than the era of print. Because the debate between Carr, Shirky, and Birkerts unfolded online, it affords us the opportunity to test whether the characteristics of digital textuality themselves

support one side of the argument or the other. And because the debate was later taken up in a series of printed book-length analyses in the popular and academic press, we can ask the same of the printed medium.

“Is Google Making Us Stupid?”

Nicholas Carr’s 2008 *Atlantic* cover story “Is Google Making Us Stupid?” opens with a paradigmatic statement of the heightened media-consciousness characteristic of the digital age. “Over the past few years,” he writes,

I’ve had an uncomfortable sense that someone, or something, has been tinkering with my brain, remapping the neural circuitry, reprogramming the memory. My mind isn’t going – so far as I can tell – but it’s changing. I’m not thinking the way I used to think.⁵

The precise change that Carr perceives is a slackening in his ability to focus: “What the Net seems to be doing is chipping away my capacity for concentration and contemplation,” he says: “My mind now expects to take in information the way the Net distributes it: in a swiftly moving stream of particles.” One activity makes Carr feel these changes most acutely: reading. “Immersing myself in a book or a lengthy article used to be easy”:

My mind would get caught up in the narrative or the turns of the argument, and I’d spend hours strolling through long stretches of prose. That’s rarely the case anymore. Now my concentration often starts to drift after two or three pages. I get fidgety, lose the thread, begin looking for something else to do. I feel as if I’m always dragging my wayward brain back to the text. The deep reading that used to come naturally has become a struggle.

As the article continues, it becomes clear that it is a specific type of reading – *literary* reading – that Carr believes is most threatened in the digital age. Polling some acquaintances – “literary types, most of them” – he hears from one friend, formerly a “voracious book reader” with an English Literature BA to prove it, who has stopped reading literature entirely; another friend reports, like a voice from a post-apocalyptic film, “I can’t read *War and Peace* anymore. . . . I’ve lost the ability to do that. Even a blog post of more than three or four paragraphs is too much to absorb. I skim it.” Carr himself, another English major, writes, “Once I was a scuba diver in the sea of words. Now I zip along the surface like a guy on a Jet Ski.”

It's no coincidence, Carr argues, that we are most aware of the internet's cognitive effects while reading – nor is it coincidental that reading is the activity most affected by the spread of the digital. This is because reading *created* the very mindset that the digital age is now dismantling. In making this argument, Carr follows McLuhan very closely. In works such as *The Mechanical Bride* (1951) and *Understanding Media* (1964), McLuhan argued that Western thought was powerfully shaped by the development of the alphabet and its extension through the printing press. The repetition and uniformity that were made possible by the printing process, he postulated, served to promote the repetition and uniformity of Western linear logic, while the mass-produced book, read in private from the reader's fixed point of view, helped encourage the notion of individuality. Carr invokes McLuhan explicitly, elegantly summarizing his notion that "media are not just passive channels of information" but in fact "shape the process of thought" as they "supply the stuff of thought." Carr further accepts McLuhan's basic premise that the printing press was instrumental in shaping the Western mind. "The kind of deep reading that a sequence of printed pages promotes," Carr argues,

is valuable not just for the knowledge we acquire from the author's words but for the intellectual vibrations those words set off within our own minds. In the quiet spaces opened up by the sustained, undistracted reading of a book . . . we make our own associations, draw our own inferences and analogies, foster our own ideas.

In the busy, noisy, frantic space of a digital text, by contrast, it is impossible to achieve the concentrated serenity that supports the literary mind. Even an identical text transferred from print into an electronic format enters into a chamber of digital disruptions:

When the Net absorbs a medium, that medium is re-created in the Net's image. It injects the medium's content with hyperlinks, blinking ads, and other digital gewgaws, and it surrounds the content with the content of all the other media it has absorbed. . . . The result is to scatter our attention and diffuse our concentration.

The deep reading fostered by print is important not only because it is necessary for comprehension, Carr argues, but also because it supports a particular kind of subjectivity. Behind the fast, cheap, superficial, "Jet Ski" mode of internet skim reading "lies a different kind of thinking," Carr says, and "perhaps even a new sense of self." Literary reading is not only the most conspicuous victim of a new and widespread form of attention deficit disorder – it is also the linchpin of the cherished notion of the individual consciousness as active, engaged, and

critical. If our ability to read literature is at stake in the digital age, Carr implies, so too is the very notion of the individual.

Clay Shirky and the Democratic Riposte

"Is Google Making Us Stupid?" quickly became a touchstone for arguments about the social and cognitive effects of the internet – and it was on the internet itself that this debate initially took place. At the same time as the hard copy appeared on newsstands, *The Atlantic* ran the full text of the article for free on its website. The digital version of the article spread quickly through links on social media and in personal e-mails, and it rapidly inspired a wide-ranging digital response, from the comments section of the *Atlantic* website to blogs, Facebook, and Twitter. One of the most fascinating venues for this digital debate was the website of the venerable *Encyclopedia Britannica*, which invited a distinguished group of thinkers to participate in a blog-based forum it named "Your Brain Online." The first to respond was Clay Shirky, a writer on the social effects of the internet who presented a forceful rebuttal of Carr's position. Shirky begins by accepting some of Carr's premises. He agrees with Carr's McLuhan-derived notion that "the mechanisms of media affect the nature of thought" and admits that the "unprecedented abundance" of information online has the power to steer our reading practices toward what he calls "interrupt-driven info-snacking."⁶ Shirky recognizes that Carr's article, despite its expansive title, is "focused on a very particular kind of reading, literary reading, as a metonym for a whole way of life." Shirky is indeed willing to go so far as to accept that literature, literary reading, and the "whole way of life" that they supported, are dying.

His objections center on two points: first, Carr's insistence that the internet is responsible for the death of literature; and second, the notion that the death of literature should be lamented at all. "Here's the thing," Shirky writes: "no one reads *War and Peace*. It's too long, and not so interesting. . . . The reading public has increasingly decided that Tolstoy's sacred work isn't actually worth the time it takes to read it." But it was television, not the internet, that initiated this move away from literary reading, which by the time of the internet's popularization was already long underway. The only difference is that in the television age literature managed to retain some of its "cultural status." As Shirky writes, "*Litterateurs* . . . continued to reassure one another that *War and Peace* or *À La Recherche du Temps Perdu* were Very Important in some vague way." The internet, however, finally led the public to withdraw this empty veneration. Citing Carr's own remarks that "we may well be reading more today than we

did in the 1970s or 1980s, when television was our medium of choice," Shirky argues that "the internet has brought reading back as an activity" – just not *literary* reading. "Because the return of reading has not brought about the return of the cultural icons we'd been emptily praising all these years," he says, "the enormity of the historical shift away from literary culture is now becoming clear."

For Shirky, the real thrust of the shift to digital textuality – the real cultural significance of the internet – is its expansion of democracy. In a follow-up to his original post on the *Encyclopedia Britannica* blog, Shirky describes the internet as "a medium that radically expands our ability to create and share written material," adding, "Every past technology I know of that has increased the number of producers and consumers of written material, from the alphabet and papyrus to the telegraph and the paperback, has been good for humanity."⁷ If we are currently undergoing an initial bout of information overload, struggling to spot the pearls of wisdom as we zip along the surface of online reading, we need only give ourselves time to adjust. "Technologies that make writing abundant," Shirky says, "always require new social structures to accompany them." Rather than casting a wistful retrospective gaze on the passing of a literary culture tainted by snobbery and exclusivity, Shirky argues that we ought to focus our attention on the new artistic possibilities of a democratic, inclusive, post-literary digital age. "Getting networked society right," he writes, "will mean producing the work whose themes best resonate on the net, just as getting the printing press right meant perfecting printed forms." "Nostalgia for the accidental scarcity we've just emerged from is just a sideshow," he concludes; "the main event is trying to shape the greatest expansion of expressive capability the world has ever known."

The Gutenberg Elegies Revisited

Shirky's post, even more than Carr's original article, was geared to provoke a reaction. With haste and vehemence that would have made Tolstoy proud, nearly everyone who had ever finished *War and Peace* emerged to announce that fact and defend the cherished work. Larry Sanger, the co-founder of *Wikipedia*, temporarily laid down his arms against his natural enemy, *Encyclopedia Britannica*, and posted a long response on its website, entitled "A Defense of Tolstoy & the Individual Thinker": having "read *War and Peace* twice" and "loved it," Sanger accused Shirky of "plain old philistinism."⁸ Nicholas Carr joined the conversation as well, responding to Shirky on the *Britannica* forum with

charges of "techno-utopianism" and "a highbrow form of philistinism."⁹ The most surprising figure to join in the debate on the *Britannica* forum, however, was Sven Birkerts.

In 1994 – nearly fifteen years before "Is Google Making Us Stupid?" and shortly before the internet had begun to make its widespread social impact – Birkerts published *The Gutenberg Elegies*, a remarkably prescient book that anticipated many of Carr's arguments. In a chapter titled "The Death of Literature," Birkerts invokes McLuhan to argue, "We are in the midst of an epoch-making transition": "the societal shift from print-based to electronic communications is as consequential for culture as was the shift instigated by Gutenberg's invention of movable type."¹⁰ This transition is most readily perceived, Birkerts argues, in the act of literary reading: "Who among us," he asks, "can generate the stillness and concentration and will to read Henry James, or Joseph Conrad, or James Joyce, or Virginia Woolf as they were meant to be read?" Working from similar theoretical and anecdotal bases, Birkerts's chief worry – as with Carr – is that the new electronic regime will disrupt the model of subjectivity fostered by the printing press. The "circuit and screen," he writes, are "antithetical to inwardness,"¹¹ and the electronic era is thus one in which "the human individual fac[es] the prospect of the erasure of individual selfhood."¹² The rapid technological advances since the early 1990s have severely dated many of Birkerts's descriptions of electronic threats to individual subjectivity. The seriousness of his warning that we are, "appliance by appliance," "wiring ourselves into a gigantic hive"¹³ is greatly undercut by the particular appliances he names: "Telephone, fax, computer-screen networks, e-mail, interactive television – these are the components out of which the hive is being built."¹⁴ Yet if we set aside the CD-ROMs, the fax machines, and the "VCRs, with Nintendo capacities," Birkerts's account of a new form of technologically linked "hive mind" remains chillingly prophetic. Substitute his devices for ours, and his statement, "The idea of spending a day, never mind a week, out of the range of all our devices sounds bold, even risky," is truer today than in 1994.¹⁵

Birkerts's arguments in *The Gutenberg Elegies* indeed serve as effective preemptive counters against the kind of democratic "techno-utopianism" in which Shirky engaged in the 2008 debate. Contra Shirky, Birkerts sees the digital world as carrying an antidemocratic thrust "The techno-web and the democratic ideal are in opposition. Our whole economic and technological obsession with getting on-line is leading us away – not from democracy necessarily, but from the premise that individualism and circuited interconnection are, at a primary level, inimical notions."¹⁶ If digital interconnection is leading us away from a

notion of democracy premised on the plurality of strong, independent citizens, Birkerts proposes to use the printed book as a weapon against its incursions. Like Carr, Birkerts sees reading as a McLuhanian “counter-environment”: a place outside the dominant media environment from which we can register and study its effects. “We hold in our hands a way to cut against the momentum of the times,” Birkerts writes. “We can resist the skimming tendency and delve; we can restore, if only for a time, the vanishing assumption of coherence.”¹⁷ In a moment of rare optimism, he perceives “the possibility for a genuine resurgence of the arts, of literature in particular”:

The book . . . will be seen as a haven, a way of going off-line and into a space sanctified by subjectivity. So long as there is a natural inclination toward independent selfhood, so long will literature be able to prove the reports of its death exaggerated.¹⁸

In a rousing peroration, Birkerts ends *The Gutenberg Elegies* with a prescription for resisting the encroachment of the electronic: total abstinence. Echoing the words attributed to Satan in the hellfire sermon in James Joyce’s *Portrait of the Artist as a Young Man*, “*non serviam*, I will not serve,”¹⁹ Birkerts closes his volume with this statement: “From deep in the heart I hear the voice that says, ‘Refuse it.’”²⁰

Alas, the voice was not strong enough to keep Birkerts away from his computer in the summer of 2008. Incited by Shirky’s blithe dismissal of *War and Peace* – not to mention his insulting characterization of Birkerts as a “know-nothing” – Birkerts emerged from digital hibernation to reiterate his elegiac theses. In a line delivered with all the polish of a car-commercial slogan, Birkerts asserts, “*War and Peace* has achieved – and for over a century represented – a certain standard of greatness”; its “value,” as such, cannot be read as “a function of popularity.”²¹ As to Shirky’s insistence that we must focus our attention on “trying to shape the greatest expansion of expressive capability the world has ever known,” Birkerts argues that intimate familiarity with works like *War and Peace* is a prerequisite for such a project:

Shaping needs not only shapers, but some consensus vision among those shapers of what our society and culture might be shaped toward. I don’t know that we trust the commercial marketplace to tell us. So, some deep comprehension of our inheritance, including the work of the now-derided Leo Tolstoy, is essential.

Thus Birkerts’s sense of the stakes of the shift to digital media had not changed since *The Gutenberg Elegies*. “I prize a sense of inhabiting my self-constituted

boundaries as a distinct ‘I,’” he wrote in a follow-up post: “I fear that the steady centrifugal pull of the internet blurs me in these respects, makes it harder for me to achieve the subjective distinctness I am after.”²² If this was so, he had reason to be concerned: it was his second post on the *Encyclopedia Britannica* blog that week, with another yet to come.

From Message to Medium: Adriaan van der Weel’s “Salient Properties” of Digital Textuality

Beyond a general acceptance of McLuhan’s thesis that “the medium is the message,” there is little agreement between rival factions regarding the specific tendency of the digital medium. For Carr and Birkerts, the digital age in general and digital forms of textuality in particular make it more difficult to muster the concentration required to engage actively with literature, thereby challenging a notion of the individual fostered by a textual medium requiring deep, linear attention. For Shirky, the Carr-Birkerts line of argumentation is nostalgic at best and elitist at worst. The shift toward digital textuality should be celebrated, he argues, for ushering in a more democratic age of literary production in which greater access to texts makes for more readers, greater ease of publication makes for more writers, and the interactive nature of the medium challenges the very lines dividing readers from writers.

Because we find so little agreement between these rival factions in the content of their arguments, let us take a cue from McLuhan and shift our focus from message to medium. Given that the debate was not only *about* digital textuality but in fact also *occurred digitally*, let us investigate the nature of digital discussion itself to test the rival claims on which it turned. Do the characteristics of online conversation serve to justify Carr’s pessimism or to validate Shirky’s optimism? How would the debate have played out differently had it taken place entirely in print – if Shirky had responded to Carr in the Letters to the Editor pages of the September 2008 issue of *The Atlantic* or if Birkerts had expressed his support for Carr’s arguments in a revised and enlarged print edition of *The Gutenberg Elegies*?

Before we can answer these questions, a better understanding of the specific characteristics of digital textuality is required. A useful starting point in our investigation is Adriaan van der Weel’s *Changing Our Textual Minds* (2011). Looking at digital forms from the perspective of book history, van der Weel identifies the following “salient features” that distinguish digital texts from their print predecessors.²³

1. *Textual instability.* Printed texts are static, unalterable, and permanent; this explains the cachet of first editions, as well as the seriousness with which errors and omissions are treated in printed books – wounds that inserted errata slips can never quite heal. The protean digital text, in contrast, is forever alterable. This “lack of closure” – the fact that a digital text is never truly finished, remaining always open to further visions and revisions – is, for van der Weel, one of the most marked differences between the digital and print.²⁴
2. *Ease and low cost of copying.* The business model of book publishing is premised on the relatively high costs of printing and distributing physical books. Digital texts, however, are extremely cheap and easy to copy. For instance, to view a web page, your browser must copy all relevant data from the server on which the page resides. Such digital copies are not only extremely inexpensive but also perfect. The distinction between original and copy is thus troubled in the digital realm.
3. *Speed.* Crucial to the ease of copying is the speed at which it occurs. The speed of transmission on the internet is such that any point on the network can be reached almost immediately, regardless of physical distance. The relatively small size of entirely text-based files means that volumes that would take up many shelves in physical form can be transferred almost instantaneously.
4. *Two-way traffic.* While printed texts tend to travel on one-way streets, from publisher to printer to distributor to bookseller to reader, all traffic on the internet is bidirectional, based on the interaction of clients and servers. These roles, moreover, are necessarily reversible: every computer can be both a client and a server.
5. *Lack of hierarchy.* Because it was originally designed so that it would continue to function even if large parts of it were destroyed, the internet is architecturally “flat.” Whereas the distribution of a given printed text could be interrupted, for example, by bombing the printing house where it is being produced or by destroying a truck delivering an edition, digital texts move across the internet in “packets” that will find new routes if their path is obstructed at any point. Because of this nonhierarchical, “flat” structure, the internet is effectively centerless.
6. *Convergence of modalities.* Whereas the printed page is limited in the modalities it can transmit (text, still images, and – in flip books – moving images) it is possible to combine many more modalities in the digital realm: text, still images, moving images, and sound. The digital medium thus makes possible the convergence of all other media, such as recorded music, television, newspapers, magazines, and books.

Modalities and media

Though I strive to avoid technical jargon in this book, a definitional digression is required for the terms **modality** and **medium**. For my purposes, a **modality** is a type of information that can be communicated through a medium. In the course of this book, we will deal with four artistic **modalities**: text, still images, moving images, and sound. A **medium**, by contrast, is a specific communication technology for recording and disseminating messages. Particular media (or mediums) are capable of transmitting particular combinations of modalities. The medium of print, for instance, usually records and transmits the modalities of text and still images; the medium of radio deals only with the modality of sound; and the digital medium is able to carry all four of these modalities.

7. *Access through content.* One of the main functions of print libraries is to organize books in such a way that readers can find the texts they need as quickly as possible. Digital texts, however, make it possible for readers to bypass such organizational machinery, along with whatever “gatekeeping” function it might serve. Rather than searching for a text by author, subject, or genre, readers can search the book’s content directly, for instance looking for books that contain certain sentences or phrases.

These “salient properties” serve to clarify what is distinctly “digital” in the Carr/Shirky/Birkerts debate. First, it transpired much more rapidly than a print debate carried out in the pages of newspapers, magazines, or – slowest by far – books; interlocutors exchanged barbs in intervals of hours – not days, months, or years (*speed*). Digital publication also opened the debate to a much wider readership than would have been possible in print. Because argument and counterargument, post and counterpost, took place in a medium that distributes texts instantaneously (*speed*) throughout the entire globe at very low cost (*ease and low cost of copying*), there were few disincentives for interested readers to take in the whole of the debate. If they had not heard of the particular discussion, but were interested in the cognitive effects of the internet, a few moments’ Googling would lead them to it (*access through content*). Perhaps the most distinctive feature of the digital medium, however, is the ability for these readers to participate in the debate themselves. Owing to their computers’ ability to switch instantly from client to server (*two-way traffic*) and to the particular affordances of the platforms on which the debate took place, these readers had the ability to very easily post their comments and thus switch roles from reader to writer. Try doing that with a book.

With van der Weel's "salient properties" in mind, we are ready to ask which side of the debate they tend to support. Van der Weel himself takes Shirky's side. If we are witnessing the transition from the "Order of the Book" to some new "disorderly" digital world, he argues, it will ultimately be a gain for democracy. "The material form of the book," he writes,

makes it an instrument that naturally favors the creation of lasting records of human thought, and that naturally imposes a hierarchical, orderly, and linear order on those records. Books are self-contained, unchangeable, authoritative: monuments of achievement. By extension, in a literate society like ours, an education system based on books favors a hierarchical, orderly, and linear way of thinking. In this manner the Order of the Book strongly influences – even determines – our way of conceptualizing the world.²⁵

The digital realm, by contrast, "constitutes a more level form of cultural transmission":

[It is] democratic, fluid, tending towards disorder, consisting of endless chunks of textual matter, connected actively and deliberately through links, and passively and potentially through search queries, allowing endless permutations and recombinations. Moreover, these text chunks also find themselves in the company of chunks of other modalities, in equally rich variety and quantities. The well governed and orderly textual world in which everything has its place is being confronted by a docuverse of text and other modalities that is decidedly disorderly, even anarchic.²⁶

Van der Weel's arguments shed light on the Carr/Birkerts/Shirky debate. There is no doubting the democratic thrust of a digital medium that allowed this debate to occur in real time in searchable, freely accessible channels. The most powerful card in Shirky's hand, however, is the digital medium's affordances for reader participation: the opportunity that it extends for readers to become writers – for passive subjects to become active citizens. A close examination of the actual reader participation in this debate, however, reveals a more complicated picture.

Participation, Pro and Con: Reading Readers' Comments

As I write these words, the online version of "Is Google Making Us Stupid?" has received 23,000 Facebook shares, 2,000 tweets, and 466 comments. The comments system on the *Atlantic* website is anonymous, but requires users

to be logged in. Registered users can comment and vote a post up or down by clicking on corresponding arrows. The comments are displayed in order of their voting rank (those with the most up-votes minus down-votes appear first) although the conversation is threaded, so that low-ranked replies to highly ranked comments appear near the top.

That these comments exist at all serves as a living argument in Shirky's favor: it is unquestionably "democratic" that the digital version of "Is Google Making Us Stupid" should allow readers to become writers and participate in the discussion – which they did, in large numbers. The way the comments are arranged on the *Atlantic* website – by user votes – is itself straightforwardly democratic. It is somewhat surprising, then, that given the opportunity to express their feelings on the social effects of the internet and to vote however they chose on other readers' comments on the subject, almost no one agreed with Shirky's line of argument. In fact, only 3 of the 466 commenters took his side: commonengineer noted that, as a nonsubscriber to *The Atlantic*, "Had it not been on-line, this article could not have come to my attention";²⁷ silverfox808 saw the fact that so many users had read and commented on Carr's lengthy article as "evidence contradicting [his] fundamental premise"; and Andrew Skeehan succinctly wrote, "If it weren't for the Internet, I would not have found your article, read it in its entirety, and enjoyed the lively discussion that followed" (Skeehan's comment received a single up-vote).

Most of the 466 comments instead relate to the issue of concentration. Recognizing a rare harmony of form and content – here was a long, dense online article about how difficult it is to read long, dense articles online – a great number of commenters treated the reading of Carr's article as an opportunity to test its thesis. Of these comments, the vast majority found that Carr's thesis was correct. By far the most common single response to Carr was "tl;dr," internet slang for "too long; didn't read." Forty-five comments (just under 10% of the total comments) belong to this category, most of which recognize the implicit humor in the situation. When RafaelR wrote, "I didn't read the article, can someone sum it up?", Javier Sanchez replied, "You just did! lol." Others were less sanguine. "I made it a point to read the whole thing without being distracted," wrote jppgram777. "It was hard. I wasn't able to do it. I found myself stopping to e-mail it to others. I was also interrupted by a few Instant Messages through iChat. Plus, I just found it hard to read 'on-screen.'" Although fngaz was drawn in by the "catchy" title and amusing illustration, "further down there was just a vast sea of words and nothing else to catch my attention. You mean I actually have to read all this?!!!"

As jppgram777's comment attests, it was not just the length and complexity of Carr's argument that made it difficult to follow but also the fact that it

was published online. Some users tied this difficulty to the issue of media convergence – to the fact that because computers and smart phones are not dedicated reading devices, their other functions can interrupt the reading experience. Katrina Waldo wrote, “Even while I was reading this particular article, I was finding it difficult to concentrate . . . and ignore the fact that I had Facebook notifications, @-replies on Twitter, and available software updates. I can say,” she concluded, “that I am legitimately frightened after reading this.” Other readers blamed the particular presentation on the *Atlantic* website. AndyG Cook noted that, while reading the article, he “came across 21 in-article hyperlinks.” Preston said, “It’s funny that there is an advertisement in the middle of this article. Or is that irony? Or is that just a bit sad?” It was enough to make more than one reader long for the still, linkless mono-media of the book. Evyrioclo astutely wrote,

I think the idea that the internet and Google offers [sic] click after click after click is well-taken. When you have a book in hand, clicking is not an option. A book is weighty and 3-dimensional and leaves you with no other option. The irony of this is that by “having no option” in the area of clicking, the reader is “free” to simply dive deep, to read that particular piece.

While agreeing with many other readers that Carr’s article was “way too long,” Joyce proposed, “If it were in print, I wouldn’t mind as long as I could hold [it] in my hand.”

Further evidence in support of Carr’s argument comes from those who missed its point entirely. A great many commenters clearly did not read past the article’s misleading title. Among them was shancha, who began, “Ok let me explain, why I tell Nicolas an idiot,” and continued irrelevantly, “If you are lost in the city, and Google Map, shows you the way, is it bad?????” Such fatally uninformed comments (to say nothing of the various trolls and spam bots that participated in the discussion) might seem a parody of democracy: evidence that although the internet *permits* these commenters to participate in a rational debate, it has, at the same time, paradoxically made them too stupid to contribute anything meaningful. Yet a democratic counterargument presents itself: perhaps these voices have always existed, but simply have not been heard.

Back to the Page: Debating the Digital in Print

Although digital debates like that on the *Encyclopedia Britannica* website were the first to take up “Is Google Making Us Stupid?,” vigorous debates also took

place in the pages of printed books – only a few years later, as dictated by the slower pace of print publication. 2010 saw the publication of both *The Shallows*, Carr’s book-length expansion of his *Atlantic* article, and *Cognitive Surplus*, Shirky’s response to digital pessimism of the Carr variety. Literary scholars took an active part in this stage of the debate as well. Two books by professors of literature – Cathy Davidson’s *Now You See It* (2011) and Katherine Hayles’s *How We Think* (2012) – are representative of the academic response to the Carr/Birkerts/Shirky debate. As printed books, *The Shallows*, *Cognitive Surplus*, *Now You See It*, and *How We Think* have much in common: they are physical objects whose words are static, unalterable, and permanent (~~textual instability~~); buying and reading them costs money (~~ease and low cost of copying~~); they took a relatively long time to write, edit, print, and distribute (~~speed~~); they were produced in the top-down, writer-to-reader world of print publication (~~two-way traffic, lack of hierarchy~~); they contain only modalities than can be printed in books, such as text and still images (~~convergence of modalities~~); and unless you obtain a digital copy, their content cannot be searched (~~access through content~~). Yet it did not necessarily follow that, because they were printed books, they should all take the side of print against the digital.

The Shallows not only continues Carr’s argumentative line but also takes it to heart. As Carr relates in a digression near the end of the book, in order to write *The Shallows* he had to move to a remote mountain town with no cell phone connectivity or high-speed internet, deactivate his Twitter and Facebook accounts, “mothball” his blog, and go on a strict e-mail diet.²⁸ The book itself is a testament to the “salient properties” of print, most salient of which is the obverse of digital speed. Away from the rapid-fire exchanges of online debate, the argument that unfolds in *The Shallows* is similar to that of “Is Google Making Us Stupid?” – only longer, slower, more deliberate, and more clearly the work of a concentrated and isolated thinker. The principal difference is a deeper engagement with the relevant scientific studies in cognitive neuroscience. Carr’s conclusions are similar but differently supported: now, when he argues, “The Net is, by design, an interruption system, a machine geared for dividing attention,”²⁹ he backs up his points with a study of the effects of digital reading on working memory that concludes “people who read linear text comprehend more, remember more, and learn more than those who read text peppered with links.”³⁰ Although Carr’s argument was well received in its print form – *The Shallows* was nominated for a Pulitzer Prize – it nonetheless clearly benefited from its rehearsal online. Most notably, Carr incorporates parts of the *Encyclopedia Britannica* exchange directly into *The Shallows*. He devotes several paragraphs to explaining, and refuting, the blog post in which Shirky claimed, “No one reads *War and Peace*,” accusing

Shirky of supplying “the intellectual cover that allows thoughtful people to slip comfortably into the permanent state of distractedness that defines online life.”³¹

Shirky’s *Cognitive Surplus* appeared in print the week after *The Shallows*. Though it does not make any direct reference to the exchange on the *Encyclopedia Britannica* website, its arguments for the democratizing power of the internet are in the same spirit. What is truly new in the digital age, for Shirky, is that “the old choice between one-way public media (like books and movies) and two-way private media (like the phone) has now expanded to include a third option: two-way media that operates on a scale from private to public.”³² Whereas one-way media like TV and radio inspired a generation of “consumers and couch potatoes,” the transformative aspect of the internet is “the inclusion of amateurs as producers, where we no longer need to ask for help or permission from professionals to say things in public.”³³ All pre-digital media, Shirky argues, operated according to what he calls “Gutenberg economics”: wherever it was expensive and difficult to own and operate the means of production, producers gained total control over what the audience would see. In the digital age, by contrast, when it is easy and cheap to produce and disseminate our own content, the distinction between audience and producer breaks down. For Shirky, any decrease in the average quality of artworks in a democratic media economy is more than compensated for by the more general distribution of the right to participate. “The stupidest possible creative act,” he says, “is still a creative act.” That Shirky should make these arguments in the pages of a printed book – a form of publication that remains very much closed to the average digital-age producer/consumer and continues to operate very literally within the world of “Gutenberg economics” – does, however, undermine them to a degree. If Shirky really believed what he was saying, why would he say it in a book?

We might ask a similar question in response to Davidson’s *Now You See It: How the Brain Science of Attention Will Transform the Way We Live, Work, and Learn*. Though the interests of the book are as broad as its subtitle implies, Davidson, a literary scholar, presents a particularly pointed response to Carr’s arguments about reading in the digital age. She lists *The Shallows* among “a spate of books with alarmist titles and subtitles” that claim that “technology destroys our brain.”³⁴ In response to these books’ insistence that “the contemporary era’s distractions are bad for us,” Davidson writes, “All we really know is that our digital age demands a different form of attention than we’ve needed before.”³⁵ Drawing on her own reading in neuroscience, she suggests that “multitaskers [aren’t] paying attention worse”; they are “paying attention differently.”³⁶ Claiming that “what confuses the brain delights the

brain,” she presents “incongruity, disruption, and disorientation” as potentially “inspiring, creative, and productive forces” and argues that “new digital ways of thinking” might represent a “creative disruption of our usual thought patterns.”³⁷ Davidson, however, holds little hope for literature in its traditional forms. She mocks Sven Birkerts’s notion that “the real issue of the twenty-first century [is] that the Internet makes us so shallow we can no longer read long novels,” suggesting we have far more pressing issues to confront first. The only form of narrative art she discusses at any length – the only form for which she sees a bright future – is the videogame. Arguing that digital distraction equals mental refreshment and presenting videogames as the most refreshing of the new digital forms, Davidson suggests that the diminishment of our capacity to enjoy old-fashioned “long novels” is a matter of secondary importance – truly a “sideshow,” as Shirky had first proposed.

Hayles’s *How We Think* picks up the thread of Davidson’s argument, yet develops it in a more hopeful direction. Hayles, also a professor of literature, takes issue with some of Carr’s analysis of his scientific sources.³⁸ Her main response, however, is to demand a more careful examination of the different kinds of reading that are emerging in the digital age and how they can best be made to interact. Hayles distinguishes between three types of reading: (1) *close reading*, the close analysis of complex texts that “correlates with deep attention, the cognitive mode traditionally associated with the humanities that prefers a single information stream, focuses on a single cultural object for a relatively long time, and has a high tolerance for boredom”; (2) *hyper reading*, the kind of reading that occurs most often online, which includes “skimming, scanning, fragmenting, and juxtaposing texts” and which Hayles associates with “hyper attention, a cognitive mode that has a low threshold for boredom, alternates flexibly between different information streams, and prefers a high level of stimulation”; and (3) *machine reading*, the analysis of text through the application of computer algorithms.³⁹ In Hayles’s view, Carr is justified in worrying that “hyper reading” will cause changes in brain function that will in turn make “close reading” increasingly difficult. But Carr is wrong, Hayles argues, to position “hyper reading” as a totally malign parasite on close reading and to pit the two against one another in an either/or duality. “The problem,” Hayles writes,

lies not in hyper attention and hyper reading as such but rather in the challenges the situation presents for parents and educators to ensure that deep attention and close reading continue to be vibrant components of our reading cultures and interact synergistically with the kind of web and hyper reading in which our young people are increasingly immersed.⁴⁰

Agreeing with Davidson that “hyper attention can be seen as a positive adaptation that makes young people better suited to live in the information-intensive environments that are becoming ever more pervasive,” she nonetheless asserts, “I think deep attention is a precious social achievement” and “a heritage we cannot afford to lose.”⁴¹ Her own analysis in *How We Think* considers emerging forms of born-digital literature – works such as Steve Tomasula’s multimodal digital novel *TOC*, a “remarkable literary work” that she presents as evidence of the rich “possibilities of the digital regime”⁴² – while also investigating strategies for catalyzing the interactions of close, hyper, and machine reading on which the fate of our literary heritage depends.

Given the polarized nature of the debate between Carr and Shirky, Hayles’s insistence on balance and hybridity is refreshing. It is also both sensible and appropriate, for ours is a mixed and hybrid moment. Although literature may be shifting into the digital medium, the fate of print is by no means sealed. Carr makes convincing arguments for print and against the digital, and Shirky makes convincing arguments for the digital and against print – yet print and the digital are too closely intertwined today to allow us to take either Carr’s or Shirky’s side absolutely. The complex interdependence of digital and printed text is indeed manifest in *The Shallows* and *Cognitive Surplus* themselves. Carr’s book decries the fatal effects of the digital world on the literary mind – yet it incorporates key points from an online debate in which Carr participated. Shirky, after declaring *War and Peace* too long to read and attacking the “Gutenberg economics” of print publication as unethical and socially regressive, proceeds to expand these views in a 242-page print book published by one of the world’s largest publishers. The situation is at least as complicated in *Now You See It*, in which a literary critic argues that we should not mind if young people are no longer able to read novels, yet presents her argument in a long printed book. It is not that Carr, Shirky, and Davidson are hypocrites; it is simply that they are living in a hybrid moment. Like so many of us, they have one foot in the print world and the other in the digital.

As we return to the three big questions with which we began this chapter, let us remain mindful of the paradoxical situation we find ourselves in and resist the urge to take a particular side. The digital world is harming our ability to concentrate on literature; yet the few moments of concentrated literary attention that we somehow manage to achieve can provide valuable means of understanding and even resisting the digital world. The digital medium is both strengthening democracy, by granting greater opportunities for access and participation, and weakening it, by making it more difficult to formulate individual opinions in solitude. Let us accept that, if the digital world is killing

literature as we have come to know it, then this presents us with an immense opportunity to reevaluate and redefine literature. What is it? What is best about it and what is worst? What aspects of literature can we live without, and which aspects must survive? For literature to thrive, what must it become? In the digital age, each of these is an open question without a clear answer – which is why this is such an exciting time to study literature.

not know it nearly so well as we imagined. Digital analysis, as we have seen, has much to tell us about literature: it can help us perceive hidden patterns, allow us to venture beyond canonical works, and permit us to organize and retrieve literary texts in ways previously impossible. Yet literature, in its very resistance to the logical structures on which computational models depend, in turn has much to teach us about the digital.

Part III

Born Digital

Chapter 6

Short-Circuiting the Publication Process

Parts II and III of this book are distinguished by their respective focus on *digitized* and *born-digital* texts. A digitized work is one that begins its life in an analog form – on paper or parchment – and is made digital through a process of conversion. A born-digital work, in contrast, remains digital at every step of its production, transmission, and consumption: it is one that is composed, edited, and laid out on a digital device; that reaches its readership via the digital medium; and that is designed from the outset to be read and experienced on a screen, not a page. A purely digital signal path can radically alter the nature of the literary text: it can allow for an “interactivity” whereby the reader can directly influence the shape and outcome of the narrative, or it can allow the author to incorporate modalities not available on the page, such as sound, music, animation, and video. These new possibilities, and the ways they force us to rethink what we call “literature,” are the focus of the next two chapters in this section. But even when born-digital literature eschews medium-specific elements such as interactivity and multimodality – even when it sticks to what is already possible in a printed book – the effects can be transformative. That is the focus of this chapter.

Most literature produced today is digital in almost every stage of its production. Most authors write on a computer, in a word processor; most of them submit their work to their editors in the form of a digital file; most editors enter their corrections into the same digital file; most edited texts are then laid out in desktop publishing programs; and these texts are then generally sent to printers as a digital file. If a book becomes analog at all, today, it generally does so at the output stage: at the printing house, where an object that has existed digitally from its inception is converted into an analog book. Most successful writers still choose to make this final conversion and do so for several reasons: because writers and readers are accustomed to thinking of literature as existing in book form, because many readers prefer the experience of reading from printed pages rather than screens, because printed books make for better commodities than vaporish electronic files, because a far more mature system exists for selling books and bringing revenue to their writers. Yet many writers – an

ever-increasing number – choose *not* to make that final conversion into the analog, preferring to keep their texts digital in every form of production and distribution. Some do so to exploit digital-specific affordances of interactivity and multimodality, as we see in the following chapters. Others are attracted to the digital for more down-to-earth reasons.

Practical factors have always governed the adoption of new textual media. The abandonment of the scroll in favour of the codex was due, for instance, to a series of concrete advantages: because you could write on both sides of a codex page, you could save considerable parchment or papyrus; codices were smaller than scrolls and thus easier to transport, as well as to hide; and where it might take hours to locate a particular passage in a miles-long scroll, codices were considerably easier to navigate. In the transition from manuscript to print, practical factors likewise carried the day: manuscripts may have been more beautiful and more worthy of admiration, as John Donne and Johannes Trithemius argued (see Ch. 2), but printed books were cheaper and more uniform, reached much larger audiences, and held the potential to make sizable profits for authors, publishers, and booksellers. Technical facts about digital text – the still greater ease of copying, distributing, and commenting, for example – entail major changes from the traditional process of print publication. Although these features may in some cases make it more difficult to profit from publication, they nonetheless hold many attractions for authors, such as the ability to self-publish, work without censorship or interference from an editor or publisher, and reach one's audience directly. These changes, however, may not only make literary authorship more fluid and flexible but may also transform it fundamentally, encouraging collaborative production and deemphasizing originality as a criterion of literary excellence. Even when the product of digital authorship is no different from what could be contained in a printed book – text and static images – the material differences between analog and digital production call for powerful changes in the most fundamental aspects of the literary text: new subjects, new styles, and new conceptions of the author.

Censorship in the Communication Circuit

We began the "Digitization" section with a fable from Virginia Woolf's *A Room of One's Own*, in which she attacks the gendered barriers to access in the information economy of the early twentieth century. If access was a challenge for Woolf, however, production was not: *A Room of One's Own*, like most of her books, was published by the Hogarth Press, which she owned and operated with

her husband Leonard. Hogarth was formed on a shoestring budget in 1917, principally as a source of diversion for the Woolfs. But hand-setting type and operating the press machines quickly became something more than a means of relaxation. Running their own press allowed them, as Leonard explained in his autobiography *Beginning Again*, to bring into circulation unconventional volumes that "the commercial publisher would not look at":¹ translations of as yet unheralded Russian writers such as Dostoevsky and Ivan Bunin, the first English translations of Freud's writings on psychoanalysis, and modernist literature by writers like Katherine Mansfield and T. S. Eliot (Virginia Woolf hand-set the first English edition of *The Waste Land*, published by Hogarth Press in 1922). Hogarth Press eventually provided the Woolfs with a living; ten years after its founding, its revenues were sufficient to support them entirely. Long before it brought them financial independence, however, the Press offered the Woolfs artistic independence. Virginia Woolf knew of what she spoke when she argued for the freedom provided by "a room of one's own": Hogarth Press provided just such a room, allowing her to compose and edit a book such as *A Room of One's Own* and then to oversee (if not perform herself) its typesetting, printing, distribution, and marketing. J. H. Willis has argued that Woolf's style and particular genius "developed as it did . . . because she was free from editorial pressures, real or imagined, and needed to please only herself."² It was a freedom known to very few writers in the age of print.

For writers not in possession of their own printing house, the process of print publication presents numerous frustrations. First, and often most difficult, is the matter of convincing someone else – an editor or publisher – to spend the time and money to bring one's work into print. Jack London's *Martin Eden* (1909) captures this deeply alienating experience in its famous vision of the "inhuman editorial machine"³ of print publication: Martin, the eponymous hero of the novel, sends so many stories, articles, and poems for publication and is so consistently rejected that he becomes convinced that there is "no human editor at the other end, but a mere cunning arrangement of cogs that changed the manuscript from one envelope to another and stuck on the stamps."⁴ Even after a work has been accepted, an editorial process governed by financial considerations can be deeply frustrating to writers of strong aesthetic and artistic commitments. One such writer, George Bernard Shaw, complained in an intemperate letter of 1895 that most publishers combined "commercial rascality" with "artistic touchiness and pettishness," concluding, "All that is necessary in the production of a book is an author and a bookseller, without any intermediate parasite."⁵

If ever there was a writer fully justified in holding such a low opinion of the "intermediary parasites" of the process of print publication, it was James

Joyce. Born in the same year as Virginia Woolf and, like her, one of the boldest experimenters in modernist fiction, Joyce enjoyed none of her privileged access to publication. Woolf freed herself to write as she liked by founding Hogarth Press; Joyce, every bit as uncompromising but lacking Woolf's entrepreneurial spirit, remained throughout his career at the mercy of the "inhuman editorial machine." Joyce's first major work, the short collection *Dubliners*, took nearly a decade to bring into print. After sending the manuscript to several publishers in 1905, Joyce appeared to have found a willing publisher in Grant Richards of London. Publication was halted, however, when the printers refused to print the book on grounds that it violated British obscenity laws, containing, for instance, several instances of the word "bloody." Joyce agreed to remove all obscenities, but his revised manuscript was nonetheless rejected. After more rejections, the manuscript was accepted in 1909 by the Dublin firm Maunsell & Co. – but publication was again scuppered, this time by the publisher's concerns regarding potentially slanderous references to the recently deceased English king. Finally, in 1914, *Dubliners* was published by Grant Richards, the firm that had first contracted it some nine years before.

The story was much the same for what came to be widely considered the greatest novel of the twentieth century, *Ulysses*. Joyce began looking for a publisher following the serialization of its initial chapters in the American periodical *The Little Review* in 1918. Among the first to receive the manuscript was Hogarth Press, which declined to publish it because the novel was too long for the Woolfs to typeset themselves (they estimated the task would take them two years) and because the commercial printers they contacted advised them that publication would lead to prosecution for obscenity. (Virginia Woolf, for her part, admitted that the "directness of the language" in *Ulysses* "raised a blush" on her cheek.)⁶ In 1921, after the "Nausicaa" episode was serialized in *The Little Review*, *Ulysses* was declared obscene in the United States and banned from publication. Harriet Shaw Weaver – who had serialized sections in *The Egoist* – attempted to publish an English edition of *Ulysses*, but could not find a willing printer. Finally, in 1922, *Ulysses* was published in an edition of one thousand copies by the Parisian bookshop Shakespeare and Company; set by a French-speaking printer, however, the edition was riddled with errors. It was not until 1934, when the American ban was lifted, that *Ulysses* first became legally available in an English-speaking country.

We are accustomed to thinking of authors as solitary figures solely responsible for the works they produce yet the case of Joyce suggests otherwise. Between the writer and the reader of a printed work lies a vast machinery of independent actors, each with its own social, financial, and legal pressures and motivations – and each of these actors tangibly affects the text that reaches

us as readers. The sense of the dynamic interplay and mutual dependence in the publishing process underlies Robert Darnton's well-known diagram of the "communications circuit"⁷ (Figure 6.1). According to Darnton's schema, the author does not merely hand over her manuscript to a publisher, but is required to make revisions – often significant, sometimes destructive of the text's artistic mission. Printers and compositors do not produce the text passively; they make demands of their own and often refuse to print it. In addition, printers introduce errors, commit omissions, and make layout decisions that powerfully affect the work's reception. Books do not reach booksellers of their own accord but must be shipped, and when banned, like *Ulysses*, they must be smuggled. Booksellers determine not only the books we see on their shelves but also – by reporting back on what sells and what does not – the sorts of books publishers might accept in the first place and that authors undertake to write. Readers do not merely receive the text like empty vessels; their demands for particular kinds of books motivate the movement of the entire circuit. Decisions at each of these stages, moreover, are driven by individual actors' sense of what might attract legal or political trouble, by what might bring a profit or achieve a particular social end, and by the general economic climate. The "communications circuit" is not necessarily a bad thing; every printed book that we possess, after all, emerged from its complex machinery. But from the perspective of an author possessed of an artistic vision, one can easily understand Shaw's desire to bypass the "intermediate parasite" and speak directly to his readers. One can understand as well Woolf's desire to "short circuit" the publication process by owning her own press. The sort of control she was able to exert over her work was the dream of most writers in the age of print: no gatekeeping, no censorship, no bowing to a publisher's sense of what will sell, no incompetent typesetters or book designers in the way.

In the digital age, by contrast, every writer has her own Hogarth Press; every writer can achieve Woolf's "short circuit." Writing on the web, on a blog or a dedicated fiction-writing platform, writers can compose, edit, and format their own words. Because digital text can be copied instantly and endlessly, writers need not worry about printers. Instantaneous global distribution eliminates the need for shippers. The low cost of the entire process obviates the need to recoup expenses and, with it, the need for a bookseller. In the digital age, every writer has a direct channel to readers, with no intermediaries and no one to appease but her own aesthetic conscience. Yet this unprecedented access to publication can be a mixed blessing. As Adriaan van der Weel argues in "The Communications Circuit Revisited," the possibility for direct writer-reader contact afforded by digital textuality holds the promise of "democratizing" literary production, "in the true sense of bringing to ordinary people the

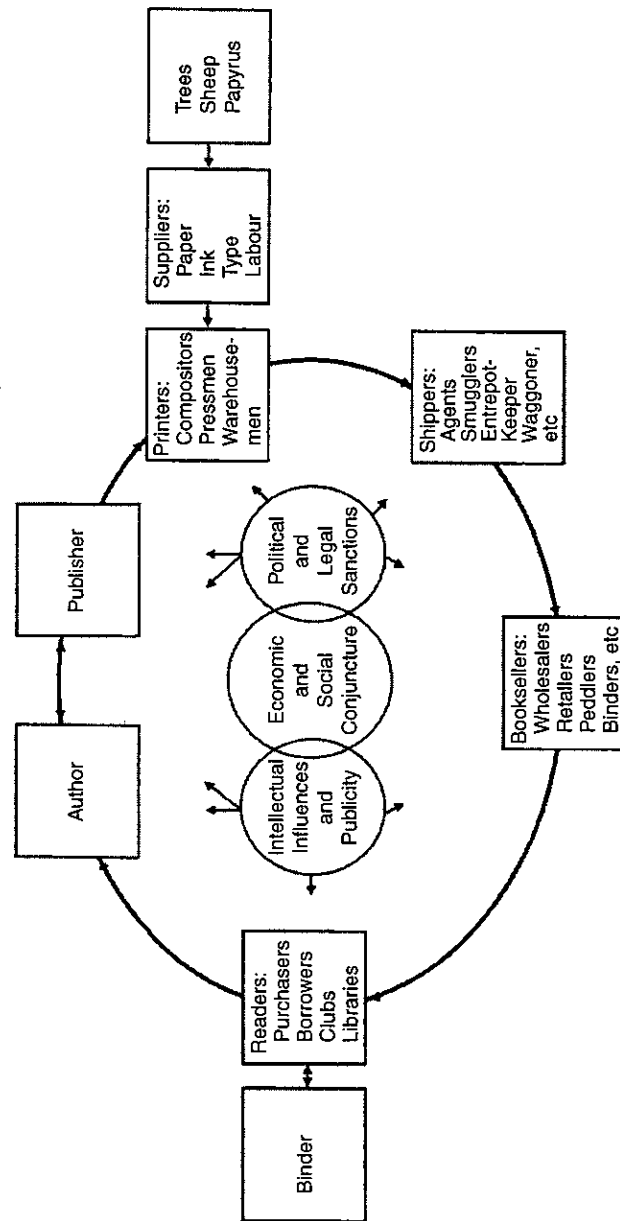


Figure 6.1 Robert Darnton's "communications circuit."

distribution of recorded text (and further democratizing production) by its low cost and easy access."⁸ But by removing publishers and other actors from the literary loop, van der Weel argues, we lose something crucial. The print "communications circuit" implies many frustrations, compromises, and outright injustices, but it also adds value to the literary text – not only through editorial interventions or professional book design but also by whittling down the massive numbers of submitted texts into something manageable for readers. A publisher's reasons for selecting one text over another may not always be enlightened, but because every published text represents a financial risk, publication decisions are always based on a belief that the book will appeal to an audience. The writers who make it through this sometimes cruel process of sorting, selecting, and filtering at least stand a chance of reaching a large audience – and possibly making a living from it.

Every writer who self-publishes digitally, in contrast, finds herself in Borges's Library of Babel. In the world of digital self-publication, the challenge is no longer access to publication; almost everyone has that, free from meddling and censorship. The challenges are instead to find an audience among all the competing voices and to say something original worthy of such an audience. In the Library of Babel, where all possible texts already exist, no one even thinks of producing an original text, because everyone knows that everything has been said; "the certitude that everything has been written," Borges's narrator says, "nullifies or makes phantoms of us all."⁹ Writers like Woolf, London, Shaw, and Joyce saw in the print publishing process a system that threatened to undermine their individual creativity and unique artistic vision. But in the digital age, when so many are so free to write whatever they like and we have unprecedented access to these proliferating texts, the very possibility of originality and individuality comes into question.

The Living Death of the Digital Author: Fan Fiction and Alt Lit

The privileged notion of the author is, historically speaking, relatively new, having grown up with the printing press. In the oral tradition, where every performance differed from every other, heavily modulated by the style and memory of the storyteller, notions of an originating author or a single definitive text were mostly nonexistent. The same was true of manuscript culture, where scribes altered, embellished, and annotated what they transcribed. This all changed when the printing press arrived with its fixed, unchangeable, identical copies. Whereas oral and manuscript models "created texts out of other texts,